REMARKS

Claims 1-27 are all the claims pending in the application.

1.   Claim Rejections Under 35 U.S.C. § 112, first paragraph

The Examiner has rejected claims 1-10, 15-17 and 21-27 under 35 U.S.C. § 112, first

paragraph, as failing to comply with the written description requirement. Specifically, as best

understood, the Examiner is contending that the feature of "setting continuously and

automatically a degree of reduction of the echo signals to be currently effected, in dependence on

the noise level N of the current channel, according to a predefined function h(N)," as set forth in

claim 1 (independent claims 4, 6 and 17 recite similar language), is only supported by the output

of block 4 in Fig. 2. The Examiner contends that the output signal of block 4, H(N)(Echo), is not

supported by the disclosure and contends that it is new matter. Therefore, the Examiner

contends that the claimed setting continuously and automatically has not been described in the

specification in such a manner to reasonably convey to one skilled in the art that the inventors

had possession of the claimed invention. Office Action at pages 2-3.

For at least the following reasons, Applicants respectfully traverse the rejection.

Applicants note that the recitation "setting continuously and automatically a degree of

reduction of the echo signals to be currently effected, in dependence on the noise level N of the

current channel, according to a predefined function h(N)" is just a clarification of the original

language, which recited that "the degree of reduction of the echo signals to be currently effected

is set continuously and automatically, in dependence on the current noise level N, according to a

predefined function h(N)." The modification of this language was merely to put the claimed

feature in a form commonly used in the U.S. for method claims.

The original claim language is clearly supported in the original Specification at least at

page 3, line 24 to page 4, line 8, which states;

> This object is achieved both simply and effectively, according to the
> invention, in that the power value of the noise level N in the currently
> used telecommunications channel is continuously measured and/or
> estimated, and that **the degree of reduction of the echo signals to be**
> **currently effected is set continuously and automatically, in**
> **dependence on the current noise level N, according to a predefined**
> **function h(N).**
> **The degree of an echo reduction or echo suppression is thus**
> **automatically and simultaneously controlled** by the currently
> occurring power value N of the noise, matched to the current noise value
> in the telephone channel and corrected in a predetermined, defined
> manner. The subjective perception of **the resultant overall signal can**
> **also be adjusted through the selection of the function h(N).**
> (emphasis added)

The selection of the function h(N) is discussed throughout the Specification as originally

filed. Accordingly, the original specification is fully enabling to one skilled in the art with

respect to the claimed setting continuously and automatically as respectively set forth in claims

1, 4, 6 and 17. Therefore, Applicants submit that the respective claim language would be

enabled regardless of the features disclosed in Fig. 2.

With respect to Fig. 2, Applicants note that this figure was added in response to the

Examiner's objection that the claimed features were not illustrated as required by the MPEP.

See Office Action of March 24, 2005. Applicants note that the §112, first paragraph, issues were

not raised by the Examiner at that time even though the scope of coverage of the original claims

was substantially similar. Accordingly, Applicants submit that Fig. 2 was not added "to produce

this claimed invention" as contended by the Examiner (Office Action at page 3), but merely to comply with the Examiner's objection.

In addition, Applicants respectfully disagree with the Examiner's contention that H(N)(Echo) in Fig. 2 constitutes new matter for at least the reasons given below.

As noted above, the Specification discloses that "the degree of reduction of the echo signals to be currently effected is set continuously and automatically, in dependence on the current noise level N, according to a predefined function h(N)." Applicants submit that block 4 of Fig. 2 is a non-limiting example of this disclosure. The input to block 4 is the detected echo signal from block 3. The output of block 4 is the degree of reduction of the echo signal based on the current noise level N, as detected by block 2. The degree of reduction is determined according to a predefined function h(N). Accordingly, the reduction signal that is sent to block 5 is a function of both the detected noise and the detected echo, i.e., H(N)(Echo). Therefore, the specification fully supports the signal, H(N)(Echo), in Fig. 2.

In addition, block 5 denotes a non-limiting example of the noise-dependent echo reduction function to be applied to the input signal as disclosed on page 12, line 26, to page 13, line 7, which states:

> It is expedient to separate noise reduction control from echo reduction control, since noises and echoes occur independently of one another and generally also have completely different physical causes. However, **it is possible to state mathematically a general reduction function R, which describes a reduction of signal levels for both noises and echoes**:
> $R(S, N, ES, \tau_E, ERL, thrs) \sim g(S/N) \cdot d(N, ES, \tau_E, ERL, thrs)$,
> wherein g(S/N) denotes the noise reduction described above **and d(...) denotes the noise-dependent echo reduction to be applied independently and additionally if the estimated echo signal exceeds the predefined threshold value thrs**. (emphasis added)

Accordingly, the degree of reduction signal, (H(N)(Echo), is an input to the noise-dependent echo reduction function that is applied to the input signal.

Therefore, for at least the reasons given above Applicants submit that the claim language is supported by the original Specification, regardless of the features illustrated in Figs. 2 and 3. In addition, for at least the reasons given above, Applicants submit that H(N)(Echo), as illustrated in Fig. 2, does not constitute new matter.

2. Double Patenting

The Examiner has objected to claim 27 as being a substantial duplicate of claim 10. Applicants respectfully disagree.

Claim 10 recites that "a portion" of the claimed functions is linear. Accordingly, only a part of the function needs to be linear to meet the claimed feature. In contrast, claim 27 recites that "all portions" of the claimed functions are linear. Accordingly, the entire function is linear.

Applicants submit that these claims provide different scopes of protection. Therefore, they are not substantially the same.

3. Objections to the Drawing

The Examiner has objected to the drawing because the features of claim 15 are not illustrated in the figures.

Applicants are submitting one new drawing sheet including Fig. 4. Fig. 4 illustrates a functional overview of an echo correction system with a speech pause detector. Support for Fig. 4 may be found at least at page 11, lines 1-5, of the Specification and Fig. 2.

4.   Rejoinder

Because the independent claims are patentable for at least the reasons given above,

Applicants respectfully request the rejoinder of all the non-elected claims based on their

respective dependencies.

5.   Conclusion

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue

Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any

overpayments to said Deposit Account.

Respectfully submitted,

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AMENDMENTS TO THE DRAWINGS

Applicants are submitting one new drawing sheet including Fig. 4. Fig. 4 illustrates a functional overview of an echo correction system with a speech pause detector. Support for Fig. 4 may be found at least at page 11, lines 1-5, of the Specification and Fig. 2.

Attachment: One New Sheet